

L9 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2003:663375 CAPLUS  
 DN 139:198844  
 ED Entered STN: 26 Aug 2003  
 TI Method and apparatus for forming layers without thickness fluctuation in the machine direction  
 IN Tokimasa, Yasuhiko; Katagiri, Yoshinobu  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM B05C005-02  
 ICS B05D001-26; B05D007-00; G11B005-842  
 CC 42-2 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003236434	A2	20030826	JP 2002-37196	20020214 <--
PRAI	JP 2002-37196		20020214		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2003236434	ICM	B05C005-02
	ICS	B05D001-26; B05D007-00; G11B005-842
	IPCI	B05C0005-02 [ICM,7]; B05D0001-26 [ICS,7]; B05D0007-00 [ICS,7]; G11B0005-842 [ICS,7] <--

AB The method includes forming coating beads on a space between (A) a die lip of a slot die coater or a slide bead coater and (B) a web conveyed with a backup roll and reducing pressure around the beads by a vacuum chamber equipped with a back plate, wherein a distance between the back plate and the web is longer than that between the die lip and the web (diagram given). Thus, a coating solution containing 4:1 mixture of

2,3,6,7,10,11-hexa(4-octyloxyphenyl)carbonyloxytriphenylene and 2,3,6,7,10,11-hexa(3-pentyloxyphenyl)carbonyloxytriphenylene, and photoinitiator (Irgacure 907) was applied on a cellulose triacetate substrate (Fujitac) coated with alkyl-modified PVA (Poval MP 203) by the method, dried, heated, and irradiated with UV to give an optical compensation sheet showing good appearance.

ST slot die coating process optical compensator; triphenylene liq cryst coating app

IT Liquid crystals  
 (discotic, coatings; method and apparatus for forming layers without thickness fluctuation in the machine direction)

IT Coating apparatus  
 Coating process  
 (method and apparatus for forming layers without thickness fluctuation in the machine direction)

IT Optical instruments  
 (retarders; method and apparatus for forming layers without thickness fluctuation in the machine direction for manufacture of)

IT 82277-45-0P, Dipentaerythritol hexaacrylate-dipentaerythritol pentaacrylate copolymer

RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)

(coatings; method and apparatus for forming layers without thickness fluctuation in the machine direction)

IT 173342-34-2 407630-06-2, DeSolite Z 7401

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES

(Uses)

(coatings; method and apparatus for forming layers without thickness fluctuation in the machine direction)

IT 365440-38-6, DeSolite Z 7526

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(hard coatings precoated on substrates; method and apparatus for forming layers without thickness fluctuation in the machine direction)

IT 9002-89-5D, Polyvinyl alcohol, alkyl-modified 139352-17-3, Poval MP 203

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(oriented films; method and apparatus for forming layers without thickness fluctuation in the machine direction)

IT 9012-09-3, Fujitac

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(substrates for optical compensators; method and apparatus for forming layers without thickness fluctuation in the machine direction)

RN 82277-45-0P

RN 173342-34-2

RN 407630-06-2

RN 365440-38-6

RN 9002-89-5D

RN 139352-17-3

RN 9012-09-3

L9 ANSWER 2 OF 3 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

AN 2003-632520 [60] WPIX

DNN N2003-503924

TI Web coating method involves providing gap between web and backplate, which is larger than gap between web and tip of slot die, when pressure reduction chamber with backplate is provided in slot die coating device.

DC P42 T03

PA (FUJIF) FUJI PHOTO FILM CO LTD

CYC 1

PI JP 2003236434 A 20030826 (200360)\* 9 B05C005-02 <--

ADT JP 2003236434 A JP 2002-37196 20020214

PRAI JP 2002-37196 20020214

IC ICM B05C005-02

ICS B05D001-26; B05D007-00; G11B005-842

AB JP2003236434 A UPAB: 20030919

NOVELTY - The gap (GB) between a backplate (30a) and a web (12), is larger than the gap (GL) between a tip (17) of a slot die (13) and the web, when a pressure reduction chamber (30) with a backplate (30a) is provided in the slot die coating device.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for coating device.

USE - For coating plastic film, paper, metallic foil and color filters with photosensitive emulsifier, magnetic liquid and pigment liquid, using slot die coating device or slide bead coating device.

ADVANTAGE - Continuous application of coating is performed, uniformly.

DESCRIPTION OF DRAWING(S) - The figure shows a sectional view of the web coating method. (Drawing includes non-English language text).

web 12

slot die 13

tip lip 17

pressure reduction chamber 30

backplate 30a

Dwg.3/4

FS EPI GMPI

FA AB; GI  
MC EPI: T03-A02A1

L9 ANSWER 3 OF 3 JAPIO (C) 2006 JPO on STN

AN 2003-236434 JAPIO

TI METHOD AND DEVICE FOR COATING

IN TOKIMASA YASUHIKO; KATAGIRI YOSHINOBU

PA FUJI PHOTO FILM CO LTD

PI JP 2003236434 A 20030826 Heisei

AI JP 2002-37196 (JP2002037196 Heisei) 20020214

PRAI JP 2002-37196 20020214

SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2003

IC ICM B05C005-02

ICS B05D001-26; B05D007-00; G11B005-842

AB PROBLEM TO BE SOLVED: To improve stepped dispersion at high accuracy coating by using a slot die coater and a slide bead coater.

SOLUTION: A coating liquid is coated on a web 12 by using the slot die 13 having an upstream side lip land length of 1 mm and a downstream side lip land length of 50  $\mu\text{m}$ . A cellulose triacetate base material is used for the web 12 and a solution of a liquid crystal compound in methyl ethyl ketone is used for the coating liquid. A gap between a tip end lip 17 of the slot die 13 and the web is set to 50  $\mu\text{m}$ , a gap between back plate 30a of a pressure reduction chamber 30 and the web 12 and a gap between a side plate 30b and the web 12 are both set to 100  $\mu\text{m}$ , and a pressure reduction degree is set to 1,600 Pa. A fluctuation width of the pressure reduction degree at the time of formation of bead is 80 Pa, and thus the stepped dispersion is not recognized on a coating film 14b.

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